Varian 620/f Computer System

Instn.	Octal Code	Instn.	Octal Code	Instn.	Octal Code	Instn.	Octal Code
ADD	120000	INRI	006040	LASR	004500^{+n}	STBI	006060
ADDE	00612x	IXR	005144	LDA	010000	STX	070000
ADDI	006120	JAN	001004	LDAE	00601x	STXE	00607x
ANA	150000	JANM	002004	LDAI	006010	STXI	006070
ANAE	00615x	JANZ	001016	LDB	020000	SUB	140000
ANAI	006150	JANZM	002016	LDBE	00602x	SUBE	00614x
AOFA	005511	JAP	001002	LDBI	006020	SUBI	006140
AOFB	005522	JAPM	002002	LDX	030000	TAB	005012
AOFX	005544	JAZ	001010	LDXE	00603x	TAX	005014
ASLA	004200^{+n}	JAZM	002010	LDXI	006030	TBA	005021
ASLB	004000^{+n}	JBNZ	001026	LLRL	004440^{+n}	TBX	005024
ASRA	004300^{+n}	JBNZM	002026	LLSR	004540^{+n}	TSA	007402
ASRB	004100^{+n}	JBZ	001020	LRLA	004240^{+n}	TXA	005041
BT*	0064zw	JBZM	002020	LRLB	004040^{+n}	TXB	005042
CIA	1025xx	JMP	001000	LSRA	004340^{+n}	TZA	005001
CIB	1026xx	JMPM	002000	LSRB	004140^{+n}	TZB	005002
CPA	005211	JOF	001001	MUL*	160000	TZX	005004
CPB	005222	JOFM	002001	MULE*	00616x	XAN	003004
CPX	005244	JOFN	001007	MULI*	006160	XANZ	003016
DAR	005311	JOFNM	002007	NOP	005000	XAP	003002
DBR	005322	JS1M	002100	OAR	1031xx	XAZ	003010
DIV*	170000	JS2M	002200	OBR	1032xx	XBNZ	003026
DIVE*	00617x	JS3M	002400	OME	1030xx	XBE	003020
DIVI*	006170	JSR	00650x	ORA	110000	XEC	003000
DXR	005344	JSS1	001100	ORAE	00611x	XOF	003001
EXC	100xxx	JSS2	001200	ORAI	006110	XOFN	003007
ERA	130000	JSS3	001400	ROF	007400	XS1	003100
ERAE	00613x	JS1N	001106	SEN	101xxx	XS2	003200
ERAI	006130	JS2N	001206	SOF	007401	XS3	003400
HLT	000xxx	JS3N	001406	SOFA	005711	XS1N	003106
IAR	005111	JS1NM	002106	SOFB	005722	XS2N	003206
IBR	005122	JS2NM	002206	SOFX	005744	XS3N	003406
IJMP	00670x	JS3NM	002406	SRE*	0066yx	XXNZ	003046
IME	1020xx	JXNZ	001046	STA	050000	XXZ	003040
INA	1021xx	JXNZM	002046	STAE	00605x	W=0-15	Y-1,2,4
INB	1022xx	JXZ	001040	STAI	006050	X=0-7	
INR	040000	JXZM	002040	STB	060000	Z=0-3	
INRE	00604x	LASL	004400^{+n}	STBE	00606x	*Optional Inst.	

Varian Data 620/f Bootstrap Load			
	Input Source		
Location	High Speed Reader	Model-B Teletype	Symbolic Code
0X7756	102637	102601	READ – CIB
0X7757	004011	004011	– ASLB
0X7760	004041	004041	– LRLB (1 BIT)
0X7761	004446	004446	– LLRL (6 BITS)
0X7762	001020	001020	– JBZ
0X7763	0X7772	0X7772	
0X7764	055000	055000	– STA
0X7765	001010	001010	– JAZ
0X7766	0X7600	0X7600	
0X7767	005144	005144	– IXR
0X7770	005101	005101	ENTER – INC
0X7771	100537	102601	– EXC (START
0X7772	101537	101201	READER), CIB
0X7773	0X7756	0X7756	– SEN. (BRDY),
0X7774	001000	001000	SEN. (RRDY)
0X7775	0X7772	0X7772	– JMP

X=0-7 (4K-32K)

Single-Word Addressing Instruction Format

15 14 13 12	11 10 9	8 7 6 5 4 3 2 1 0
0	m	M
Op Code	Address Mode	Address

"m" field: 0xx – Direct operand in location 0 – 2047 (bits 0-10)

100 – Relative add A field to P register.

101 – Index (X) add A field to X register.

110 – Index (B) add A field to B register.

111 – Indirect stored at A field location.